



A  Sempra Energy utility®

SDG&E CONTRACTOR SAFETY PROGRAM

BUILDING A PROACTIVE SAFETY CULTURE

Ray Duncan, Contractor Safety Services Manager

Building Safety Culture

- Understanding why we are trying to go down this path
 - Realizing contractors or subcontractors are part of our workforce
 - Taking ownership of the work we ultimately control
 - Designing a culture, we would want our family to have as a work environment
 - Setting an example and pushing for a safer industry as a whole
 - Developing the framework for a program that is proactive and easily understood
 - Working together as one team to push a constantly improving safety culture

Why I Do This



Regulatory Context

- August 28, 2014: CPUC issued an Order Instituting Investigation for PG&E, regarding a subcontractor incident which occurred during the demolition of an unused fuel oil tank. The PG&E Kern Power Plant settlement included a \$5.6 million fine and required implementation of a Contractor Safety Standard
- December 23, 2016: CPUC issued a \$5.45 million Citation to PG&E for using non-qualified contractors to perform certain inspections, as well as related violations
- June 29, 2017: CPUC fined Southern California Edison (SCE) \$2.01 million for an incident that resulted in the death of an SCE subcontractor's employee, who inadvertently removed an energized piece of equipment while preparing underground cables for testing

Deciding to Move Forward

1. Executive/Ownership support for program
2. Getting the right people in place to build framework and move program forward
3. Finding out current state of safety oversight

Pre-Implementation

- All Business Units using contractors had differing ways of contractor oversight
 - Confusing for contractors and has the opportunity for gaps
 - Main gaps could be pre-qualification, verification of written safety programs, and incident reporting
- Pre-qualification was inconsistent
- Subcontractors working on our property had limited/differing knowledge of SDG&E expectations

Contractor Safety Enhancements

- Developed a list of contractors that would be in scope of the enhanced Contractor Safety Program
- Established consistent pre-qualification criteria for all contractors working on our properties
- Designed a grading system to rank contractors based on SDG&E specific criteria
- Pre-qualify contractors by reviewing and verifying their safety programs and statistics
- Require job observations and audits to ensure contractor compliance
- Require post-job observations

Contractor Safety Enhancements

- Implemented a Third-Party Administrator (ISN)
- Developed cross-functional team of internal stakeholders to design the program framework
- Established two groups of contractors (Class 1 and 2)
- Require Class 1 Prime contractors to enroll in ISN
- Require Class 1 Subcontractors to enroll in ISN (Phase 2)
- Develop a Class 1 Contractor Safety Manual
- Develop an internal Contractor Safety Program Standard (G8308)

Contractor Matrix

Class 1

- A Class 1 Contractor is a Contractor engaged by the Company to perform work that can reasonably be anticipated to expose the Contractor's employees, subcontractors, or SDG&E employees to one or more hazards that have the potential to result in serious injury or illness.

Class 2

- A Class 2 Contractor is a Contractor engaged to perform any other work.

Implementation & Key Program Elements

- Class 1 Contractor Safety Manual
 - Identifies jobsite hazards along with consistent requirements and procedures for all Class 1 Contractors
- Pre-Work Safety Notice
 - Identifies jobsite hazards and is communicated and agreed upon with contractors
- Incident/Near Miss Reporting
 - Changes were made to start capturing all incident reports in a single repository
 - Section 7 of the (CSM) Class 1 Contractor Safety Manual have the incident reporting requirements
 - Section 7.1 incidents require immediate notification to SDG&E
 - Section 7.2 incidents will need reports completed
- Safety Observations
 - SDG&E is required to perform safety observations based on risk
- Post-Job Evaluations
 - SDG&E management team reviews performance of contractors

Current Scorecard Components

- HSE Statistics – 35 points
 - Past 3 years of OSHA logs
 - Past 3 years of OSHA Citations
- Written Safety Programs – 35 points
 - Programs according to the work scope of each contractor
- Cultural Questions – 20 points
 - Self answered questions related to the company safety culture
- Experience Modification Rate – 10 points
 - Tool used by insurance companies to gauge both past cost of injuries and future chances of risk

ISN Scorecard

Company ID:
Company Contact

▼ | View All Contacts (1)

SDG&E

B

Grade Scorecard

Grade Component	Status	Points	Gaps
HSE Statistics	Exceptional	35 / 35	✓
Written Programs	RAVS score is 100	35 / 35	✓
HSE Cultural Questions	Satisfactory	10 / 20	⚠
Experience Modifier	Rate is 0.56	10 / 10	✓
Fatalities	No Fatalities or Indicated Not in Business	0 / 0	✓
Sempra Post Job Evaluation	SDG&E Safety Observation Form is between 0 and 0	0 / 10	⚠
Safety Statistics Variable	Safety Statistics Variable - SDG&E Safety Team Use Only grade Not Submitted (System)	0 / 15	⚠
Fatalities Variable	Fatalities Variable - SDG&E Safety Team Use Only grade Not Submitted (System)	0 / 50	⚠
Site Tracker	Status is Complete	0 / 0	✓
Total		90 / 175	

Pre-Qualification
Criteria 100 Points
Total

SDG&E Team Use
Only

View Archived Grades

Select



Additional Points/Fatality Review Process

All contractors that have requirements complete in ISN are eligible for either:

- Additional Points Review Process
 - No Fatalities or Serious Safety Incidents
 - No Serious, Willful, or Repeat OSHA citations
 - Low severity of injuries
 - Low man hours
- Fatality Review Process
 - Objective is to grant points back to a contractor for certain fatalities
 - No closed Serious, Willful, or Repeat OSHA Citations related to the fatality
 - Fatality completely out of the control of the company
 - Fatality was related to a motor vehicle incident on a public roadway

Variance Request Process

- The Variance Request Process is used for Contractors that have a “C” or “F” in the Contractor Safety Program or not enrolled in ISN.
 - “C” grade Contractors will need an approved Variance by 3 Directors (Supply Management, Safety, and Business Unit)
 - “F” grade or “not enrolled” Contractors will need an approved Variance from 3 VP’s/Officers (Supply Management, Safety, and Business Unit)
 - Contractors with one or more Fatalities will automatically be contacted through ISN to provide additional documentation.

SDG&E Scorecard Process

What makes up the score? – a combination of ISN, Predictive Solutions (PS), and contractor incident rates at SDG&E will be used in the calculation to obtain the total safety score (maximum score is 100%). This percentage is then converted to a 5-point or 10-point scoring system to work with Supply Management's scoring.

Scoring breakdown.

1. 50% Incident Rate
 2. 40% Predictive Solutions
 3. 10% ISN
- When contractors do not have all components for scorecard grading, their ISN numerical score is used to calculate a safety score.



SDG&E Scorecard

Example Score Table:

Contractor	ISN (10%)	Predictive Solutions (40%)	SDG&E Incidents (50%)	Safety Grade	Safety Score (5-Point Scale)	Safety Score (10-Point Scale)
	65%	99.80%	100%	96.42%	4.5	9
	70%	100.00%	100%	97.00%	4.5	9
	100%	98.19%	100%	99.28%	4.5	9
	100%	97.44%	100%	98.97%	4.5	9
	100%	99.39%	100%	99.75%	4.5	9
	80%	100.00%	100%	98.00%	4.5	9
	90%	99.82%	100%	98.93%	4.5	9
	95%	97.91%	100%	98.66%	4.5	9
	80%	99.62%	100%		4.5	9
	80%	97.35%			4.5	9
	100%	84.75%			4	8
	70%	100.00%	100%	100.00%	4.5	9
	70%	100.00%	100%	95.11%	4.5	9
	100%	100.00%	100%	100.00%	5	10
	80%	98.32%	100%	97.33%	4.5	9
	100%	100.00%	100%	100.00%	5	10
	100%	99.26%	100%	99.70%	4.5	9
	80%	96.47%	80%	86.59%	3.5	7
	60%	99.38%	100%	95.75%	4.5	9
	100%	99.31%	100%	99.72%	4.5	9
	60%	99.46%	100%	95.79%	4.5	9
	65%	97.22%	100%	95.39%	4.5	9
	95%	94.44%	100%	97.28%	4.5	9
	100%	98.51%	100%	99.40%	4.5	9
	100%	100.00%	100%	100.00%	5	10
	100%	100.00%	100%	100.00%	5	10
	95%	90.16%	100%	95.57%	4.5	9
	80%	98.97%	100%	97.59%	4.5	9
	100%	100.00%	100%	100.00%	5	10

EXAMPLE

Incident Reporting

Immediate Reporting (7.1)

- Good Catch
- Non-Serious Near Misses
- Serious Near Misses
- SIF Potential Event
- Property Damage
- Injuries and illnesses
- Fires
- Hazardous situations
- Spill/Release
- Environmental Incident
- Significant adverse chemical reactions or injuries
- Electric Incident
- Gas Incident
- Stop-the-Job/Stop-the-Task situations
- Agency Involvement

Immediate Reporting and Full Report (7.2)

- Serious Near Misses
- SIF Potential Event
- Property Damage over \$500.00
- Injuries requiring treatment beyond First Aid
- Fires
- Hazardous situations
- Spill/Release
- Environmental Incident
- Significant adverse chemical reactions or injuries
- Electric Incident
- Gas Incident
- Stop-the-Job/Stop-the-Task situations

App Based Reporting

SDG&E Contractor Incident Report Process

Starting April 1, 2022, SDG&E will be transitioning to the Smartsheet application for all incidents, near-misses, and good catch events. ISN will no longer be the reporting platform after this date. Per Section 7 of SDG&E's Class 1 Contractor Safety Manual, Contractors are responsible for immediately reporting via the [SDG&E Contractor Incident/Event Notification Form](#) any project-related incidents.

The form can also be accessed via QR Code:



The required fields of the form include:

- Contractor Company Contact Name (Best contact regarding incident/good catch)
- Contractor Contact Email Address
- Contractor Company Name (Name as listed in ISN)
- Subcontractor Involvement
 - Subcontractor Name, if applicable
- Incident Date
- Incident Type(s) (Multiple selection dropdown)
- Incident Description
- SDG&E Business Unit

If an incident meets the criteria described in Section 7.2 of the Class 1 Contractor Safety Manual, Contractors will receive a request via Smartsheet to complete a full incident report due within 10 calendar days of the incident.

Contractors are encouraged to download the Smartsheet app from the App Store for iOS, and the Google Play Store for Android devices.



Contractors should contact SDGEContractorIncidents@sdge.com or SDGEContractorSafety@semprautilities.com with any questions during the transition.



SDG&E Investigation of Contractor Incidents

Contractor Incident Type	Required Team	Incident Form
Level 3 Incident <ul style="list-style-type: none"> • Fatality • Life-Altering Injury • Life-Threatening Incident 	<ol style="list-style-type: none"> 1. Legal Counsel 2. Team Leader (Manager, Director level) 3. Business Unit Subject Matter Expert 4. Business Unit Safety Representative 5. Safety Department Manger 6. Optional additional personnel (as needed) 	<p>CSP-013-3 (Incident Investigation Report Template)</p> <p>CSP-013-4 (Incident Debrief Form)</p>
Level 2 Incident <ul style="list-style-type: none"> • Serious Near Miss • Serious Safety Incident that does not rise to a Level 3 Incident • SIF Potential Event • Property Damage, Fire, Spill, Release with \$50,000.00 or more in damages (with supervisor initiation) ** • Cal/OSHA recordable incident impacting or affecting more than one employee that does not rise to a Level 3 Incident (with supervisor initiation)** • CPUC Reportable Incident that does not rise to a Level 3 Incident (with supervisor initiation)** • DOT Reportable Incident that does not rise to a Level 3 Incident (with supervisor initiation)** • Incident Trends that do not rise to a Level 3 Incident (with supervisor initiation)** 	<ol style="list-style-type: none"> 1. Legal Counsel 2. Team Leader (Manager, Director Level) 3. Subject Matter Expert 4. Business Unit Safety Representative 5. Optional additional personnel (as needed) 	<p>CSP-013-3 (Incident Investigation Report Template)</p> <p>CSP-013-4 (Incident Debrief Form)</p>
Level 1 Incident <ul style="list-style-type: none"> • Non-Serious Near Miss at the Business Unit’s discretion** • Cal/OSHA recordable incident impacting or affecting one employee that does not rise to a Level 2 or 3 Incident • First-Aid that results in a visit to a medical facility.** • Environmental Incident that does not rise to a Level 2 or 3 Incident • Agency Involvement that does not rise to a Level 2 or 3 Incident 	<ol style="list-style-type: none"> 1. SDG&E Representative 2. Safety Team Lead 	<p>CSP-013-1 (Contractor Incident Reporting Form)</p> <p>This form is built into ISNetwork</p>

Incident Review and Mitigations



ACTIVITY: Human External Cargo (HEC) Work

INCIDENT SUMMARY: Crews were tasked to remove and replace marker balls from the static line of a 500kV span. The HEC linemen utilized an ARS (Air Rescue Systems) Air-chair attached to a 60' HEC long-line. Mid-way way through the day, during a descent to position the linemen at the next marker ball, the HEC long line made contact with the static line and at one point appeared to get snagged by the static line. The linemen immediately recognized the situation but were unable to free the line. The pilots, having also noticed the entanglement, slowly ascended the helicopter in an attempt to free the line. The static line was pulled up vertically and eventually snapped free.



Upon further review, the crews determined that a single tri-action carabiner made contact with the static line and the line was able to partially open the keeper and temporarily get caught in the carabiner. The tri-action design of the carabiner requires three distinct movements to open the keeper. A vertical movement of the barrel, a twisting movement of the barrel, a fashion to lower and twist the barrel and begin pushing against the keeper. Fortunately, the static line was only able to get as far as getting caught between the keeper and the frame of the carabiner and the pilots were able to free the static line by ascending. Following an extensive debrief and tail board, the operator used alternative measures to secure the Air-chair to continue operations.

A nearly identical event occurred in early January 2022 with a different operator and crew. In this instance, the carabiner was able to fully clip into the static line from which the pilot was unable to clear by ascending. One of the linemen in the air chair had to stand on his seat in order to reach and free the carabiner from the line.

STATUS: Crews stopped work and conducted a new tailboard. Alternative measures were used to secure Air-chair to continue HEC operations.

CORRECTIVE ACTION(S):

- Notify all internal and external interested parties that continued use of the ARS Air-chair shall only be permitted if the manufacturer's mitigation measures are installed.
- Manufacturer (ARS) contacted on 1/22/2022, and will be generating a formal written document to address mitigations of specific air chair components to address the current potential for inadvertent functioning when/if contact is made with static materials during flight.
- Establish radio communication between the suspended linemen and the PIC for improved situational awareness. Linemen should be prepared to provide directional inputs to the pilot when they are within the final few feet of the inflight work location.
- Conduct a thorough cleaning and inspection of each carabiner prior to first use of the day. Emphasis should be on ensuring all moving parts are free from any binding or restrictions that would prevent proper operation as designed.

- Developed when:
 - Serious Near Miss
 - SIF Potential
 - SSI
 - Fatality
 - OSHA Recordable incident impacting or affecting more than one employee
 - Incident trends
 - Determined applicable by CSS or SDG&E Representative

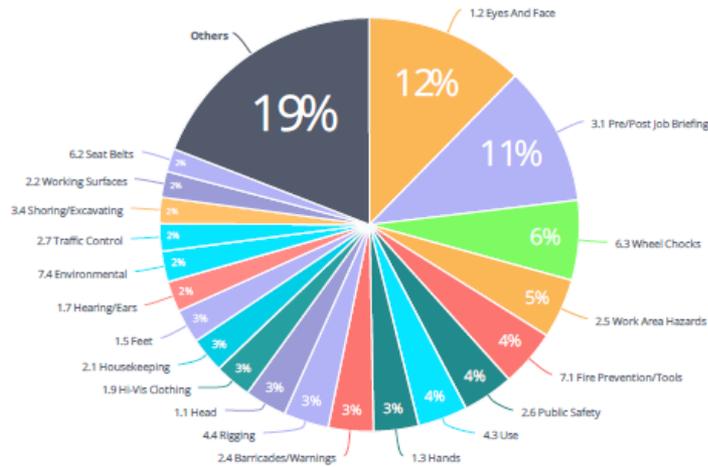


Safety Observations

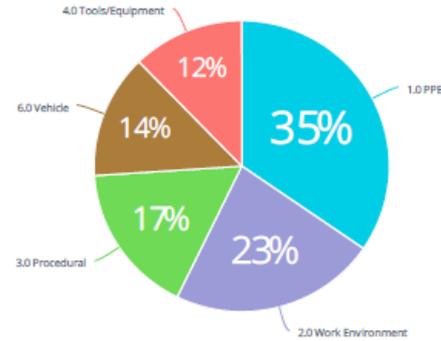
SDG&E Observation Dashboard (January - March 2022)



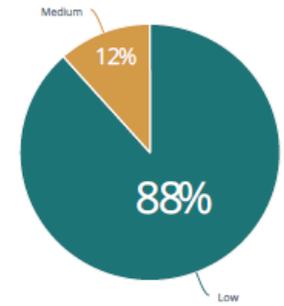
Top 5 Business Units Observations by At-Risk



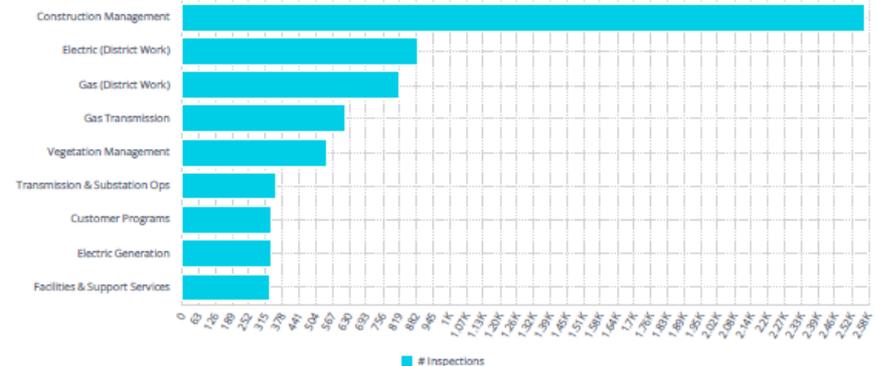
At Risk Behaviors



Severity Count



of Inspections per Project



Communication

- Bulletin Board- Broad Communication
 - Class 1 Contractor Safety Manual
 - Hazard Communications
 - Incident Debrief Form
 - Monthly Newsletter
- Action Item Tool- Targeted Communication
 - Contractor Pre-Work Safety Meeting and Acknowledgment form
 - Incident Report Form
 - Corrective Action Notice
- Local Contact List
 - Email of all local contacts internal and external to SDG&E that manage Class 1 work

External Engagement Prime/Sub

- Partner with our contractors to enhance safety culture
 - Construction meetings
 - Monthly Management meetings
 - Monthly SDG&E specific hours and incident reporting
- Pre-Work Safety Notice
 - Notification of known hazards on the jobsite
 - Jointly agreed upon and signed by company and contractor
- Safety Observations
 - Gaps communicated to contractor management for review and closeout
 - “High-Risk” observations tracked through completion
- Post-Job Evaluation
 - Review of the overall project
- ISN Roundtable, Help Desk, User Group, and Connect Events
 - Used to educate contractors and internal employees

External Engagement Prime/Sub

- SoCal USA
 - Group of safety professionals including all contractors engaged by SDG&E
 - Meetings are intended for collaboration on identification and mitigation of trending gaps in our industry
 - Supported by SDG&E executive management
- Periodic culture assessments and benchmarking maintain consistent focus for contractor workforces

Training Verification

- 2022 Pilot
- Class 1 Contractor employees are observed when working on an SDG&E project
- Work activities determine what trainings are required
- Training documentation is requested from contractor management

Initiative timeline

Phase One

- ✓ Designed Contractor Safety Program framework
- ✓ Required prime contractor compliance with the Contractor Safety Program
- ✓ Developed business unit procedure
- ✓ Implemented additional oversight of contractors
- ✓ Established business unit safety audit procedures
- ✓ Developed post-job evaluation criteria

Phase Two

- ✓ Required subcontractor compliance with the Contractor Safety Program
- ✓ Reviewed Pre-Qualification Criteria effectiveness
- ✓ Developed web-based company orientation training for contractors
- ✓ Established safety audit procedures for Subcontractors

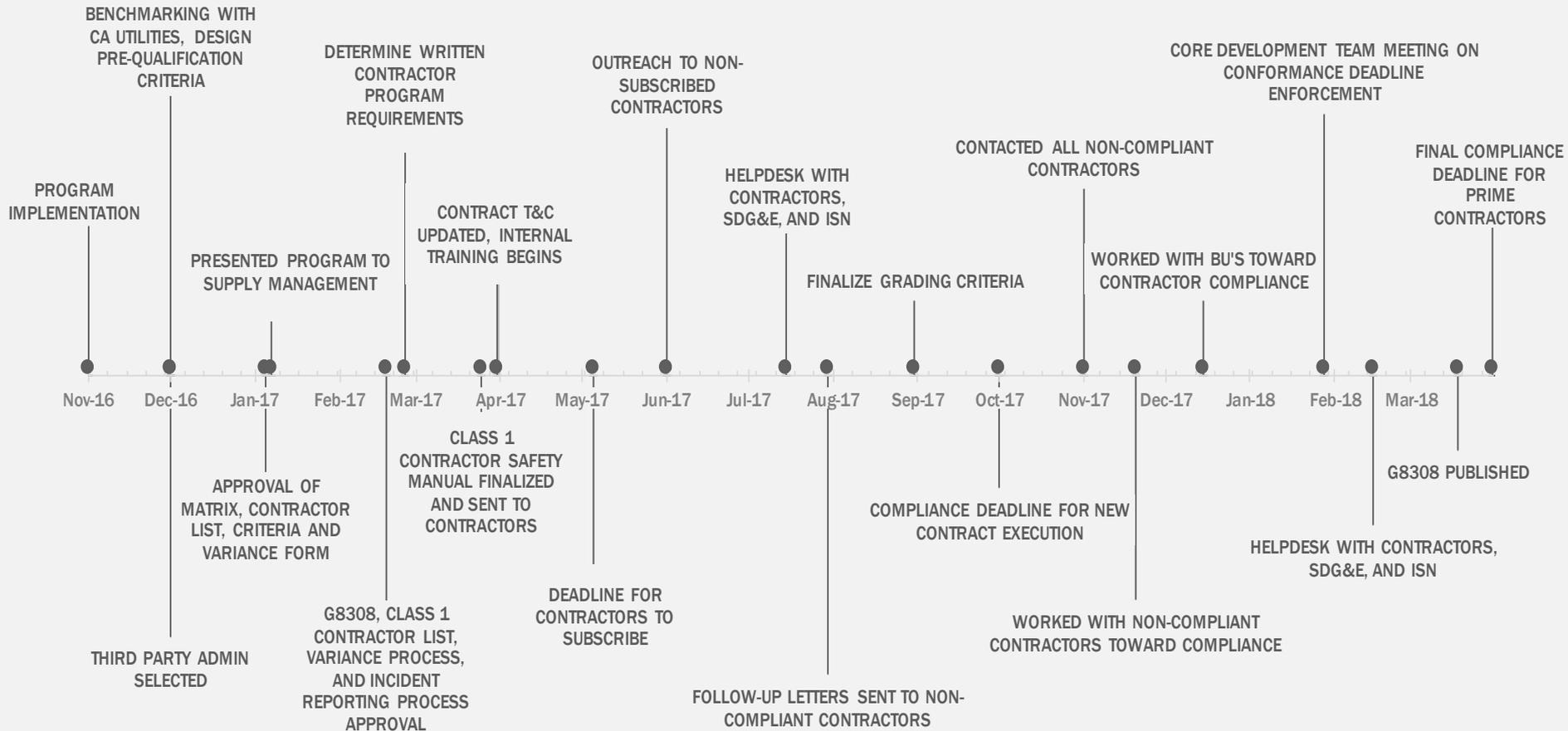
Phase Three

- ✓ Require task specific employee training to be submitted and verified
- ✓ Track training and follow up on identified gaps
 - Add or refine requirements if needed



Our Phase 1 Journey

SDG&E Contractor Safety Program Timeline



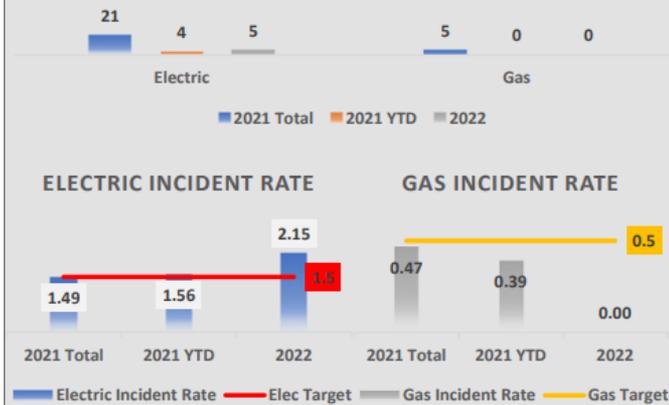
Monthly Reporting

Construction Management – February 2022

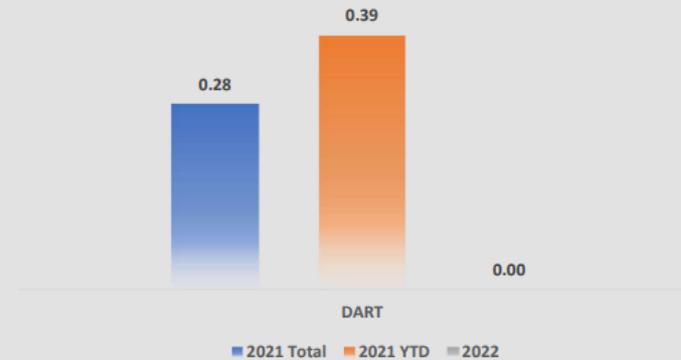
CONSTRUCTION MANAGEMENT TRIR - YTD



YTD INCIDENTS



DART RATES



Monthly Reporting

Construction Management – February 2022

CONSTRUCTION MANAGEMENT CONTRACTOR COMPLIANCE (ACTIVE AGREEMENTS)

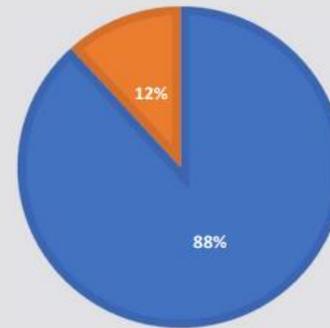
YTD CONTRACTOR HOURS



Total Hours, YTD:
465,681.09

- Prime Hrs
- Subcontractor Hrs

Compliant Non-Compliant



Contractors w/Variance	Expiration Date	Non-Compliant Active Contractors
	4/29/2022	- 2021 OSHA discrepancies
	4/29/2022	- Variance required
	4/29/2022	- Site Tracker
	4/29/2022	- Site Tracker
	4/29/2022	
	4/29/2022	
	4/29/2022	
	4/29/2022	
	4/29/2022	
	4/29/2022	

Contractor Safety 5-Year Plan

Initiative	Descriptor	2018	2019	2020	2021	2022	Target
Contractor Safety Program	Collect, review, analyze contractor safety and regulatory information to ensure contractor safety qualifications meet SDG&E requirements	<ul style="list-style-type: none"> -Implement subcontractor pre-qualification for all Class 1 Subcontractors -Ensure Key Business Units submit a Procedure to comply with the Contractor Safety Program Standard -Establish safety audit procedures for subcontractors -Start the development of orientation training for contractors -Review Pre-Qualification Criteria effectiveness 	<ul style="list-style-type: none"> -Implement task specific training qualification verification of Class 1 Contractors -Review need to use the ISN badging tool -Ensure all Business Units that use Class 1 Contractors submit a Procedure to comply with the Contractor Safety Program Standard -Review the need for safety specialists in all Business Units -Review the need for additional support on the Contractor Safety Program team -Ensure orientation training is implemented with Class 1 Contractors 	<ul style="list-style-type: none"> -Review effectiveness of grading criteria -Implement leading indicators into grading criteria -Trending of enterprise wide incidents to determine mitigation measures specific to Business Units -Increase field observations of Class 1 Contractors and subcontractors -Implement a unified system for safety observations -Determine criteria for work permits/SSSP on critical work activities - Ensure all Business Units are fully compliant with the Contractor Safety Standard G8308 	<ul style="list-style-type: none"> -Evaluate the need to increase the pool of eligible suppliers -Evaluate motor vehicle records of contractors -Determine criteria for fleet safety requirements - Develop requirements for drug testing -Implement work permits/SSSP for critical work activities --Review need to audit Business Units and Contractors for compliance 	<ul style="list-style-type: none"> -Implement drug testing requirements -Implement fleet safety requirements -Audit Business Unit and Contractor compliance with the Contractor Safety Program -Employee specific training verification 	Centralize line-of-site for prime and sub-contractors to support that only safe and qualified contractors are hired to improve workplace safety

Accomplishments

- Contractor Safety Services Accomplishments
 - Prime Contractor Compliance in the SDG&E Contractor Safety Program (Approx. 587)
 - Subcontractor initiation into the SDG&E Contractor Safety Program (Approx. 599)
 - Site Tracker implementation
 - CSP enhancements (Pre-Work Safety Notice, observations, Post-Job Evaluation, incident reporting)
 - Business Unit support of enhancements
 - Contractor Safety Services alignment
 - Benchmarking with other CA utilities
 - SDG&E specific scorecard

CultureSight

The Big Picture - Overall Safety Culture Maturity (2020)

Data indicates a proactive safety culture, but there are specific areas of focus to investigate further

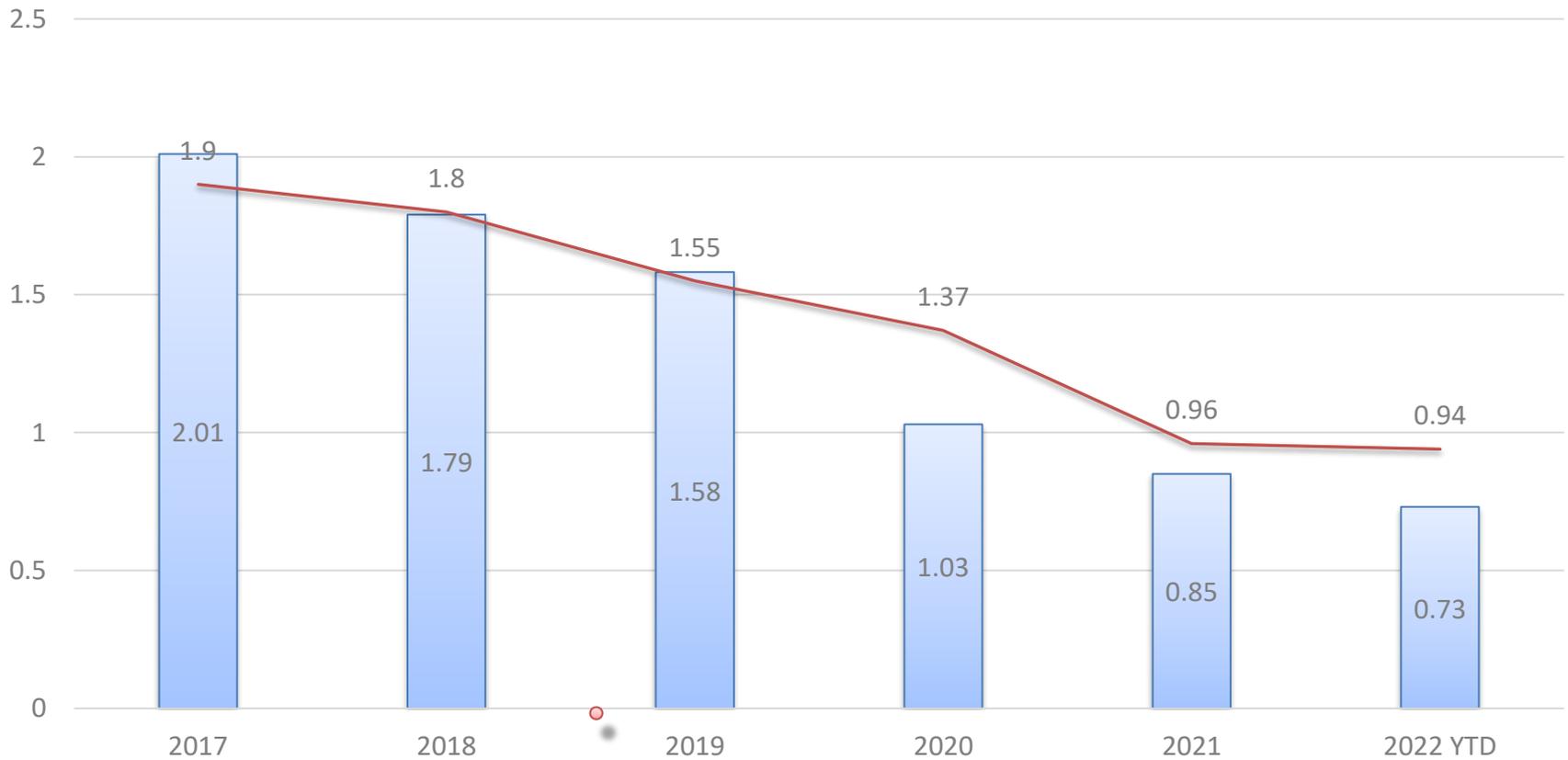
"In my experience SDG&E has an overall culture of setting the bar high for themselves, us contractors and our employees. SDG&E is always seeking better ways to understand their system, harden their system for public safety and support like-minded contractors committed to employee safety."

81/100
Overall Rating
Benchmark Group Average: 78



Contractor Safety Glidepath

SDG&E Contractor Safety Performance



Upcoming Program Goals

- Expand our proactive initiatives
 - Enterprise-wide training verification
 - Minimum requirements for training
 - Building leading indicators into grading
- Using technology to simplify and expand safety oversight

Program Challenges

- Enterprise-wide agreement on a safety oversight program
- Timeframe between rollout and final compliance deadline
 - Contractual requirement timing
- Subcontractor compliance
- Locating contractors for safety observations

Closing Comments

- Develop a framework that is consistent, written, and easily followed
- Work with your contractors to build a program that will work in the field
- Train users internally and externally
- Build a culture of trust
- Do more than just require paperwork submittals
- Enhance your program as conditions change
- Don't just rely on a third-party administrator
- Internal ownership is essential for program success

Contractor Safety Program

Questions?